IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex Parte Appeal	:
In re Patent Application of HALPER, et al.	:
for	:
AUTOMATED LOAN RISK ASSESSMENT SYSTEM	: Application No. 10/046,945 Application Filing Date: January 14, 2002
Examiner: GRAHAM, Clement Art Unit: 3691	:

APPEAL BRIEF OF APPELLANT

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REAL PARTY IN INTEREST

The real party in interest is INTERTHINX, INC. by virtue of being the assignee of 100% of the interest in the present application.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1-10, 12-24, 26-38, 40-52, and 54-56 are pending, currently stand rejected, and are the subject of this appeal. Claims 11, 25, 39, and 53 were previously cancelled.

STATUS OF AMENDMENTS

No amendments have been made to the claims subsequent to the final Office Action dated April 27, 2010, which is the subject of this appeal.

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SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claims 1, 15, 29, and 43 relate, respectively, to an automated loan risk assessment system (Claims 1 and 15); a computer-readable medium whose contents cause a computer system to assess the risk associated with funding or insuring a loan (Claim 29); and computer-implemented method of assessing the risk associated with the funding or insuring of a loan (Claim 43). The full text of each of these claims appears in the Claims Appendix attached hereto.

By way of overview, Applicants' invention relates to an automated loan risk assessment system. The invention provides a system that can be accessed via the Internet, and which allows a lender (or other party) to enter information about a loan and to obtain an electronic evaluation of the level of risk associated with the loan. See Specification at p. 11, lines 6-9. The system processes the loan information provided by the user and scores the loan to indicate to the user a level of risk associated with the loan. See id. An overview of the system architecture is shown in FIG. 1 of the application, and is reproduced below:
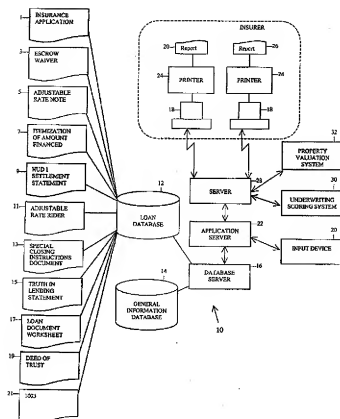
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FIGURE 1

With reference to FIG. 1, the system (10) can access a plurality of sources of information relating to loans (stored in databases 12 and 14), and compares loan information provided by a user of the system to the information stored in the databases 12 and 14 to determine a level of risk associated with a particular loan. See, e.g., Specification at p. 11, line 11 - p. 12, line 18. The information stored in the loan database 12 could include information from publicly-available sources, such as documents relating to real estate transactions, deeds of trust, etc. See id.

Using the loan information provided by the user and the information stored in the databases 12 and 14, the system calculates a numeric risk score for a loan based upon a plurality of risk factors including a fraud risk factor, an underwriting risk factor, a property valuation risk factor, and a credit risk factor. See generally Specification at p. 14, line 15 - p. 18, line 10. The

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system also assigns a risk category to the loan based upon the risk score. See id. The numeric

risk score could include, for example, a three-digit numeric number (e.g., "320"), and the risk

category could include easy-to-understand words which indicate the risk category for the loan

(e.g., "High," "Low," etc.). See id. The numeric risk score and the risk category are displayed to

the user in a computer screen, and can be used by a loan service provider in deciding whether to

fund or insure the loan. See id. FIG. 5 of the application, a portion of which is reproduced

below, shows a sample screen generated by the present invention and which is displayed to the

user:

As can be seen, the computer screen display shown above includes the numeric risk score for a

loan (the "320" score shown at reference numeral 78), and the risk category for a loan (the

"Investigate" category shown at reference numeral 80). As mentioned above, the system can be

accessed through a website, and the screen can be displayed in a conventional web browser.

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As required by MPEP 1205 and 37 C.F.R. 41.37, it is noted that independent claim 1 recites the following elements utilizing means-plus-function language under 35 U.S.C. 112, paragraph 6:

- "means for calculating a numeric risk score for the loan based on a plurality of risk factors including at least two of a fraud risk factor, an underwriting risk factor and a property valuation risk factor...;"

- "means for assigning a risk category to the loan based on the numeric risk score;"

- "means for generating a computer screen for displaying the numeric risk score and the risk category to a user."

Applicants submit that the structure, materials, or acts which correspond to the foregoing limitations are shown in the drawings and described in the specification in connection with one or more of the hardware elements shown in FIG. 1 (i.e., one or more of the elements 16-32 in FIG. 1) and the processing steps shown in FIGS. 2 and 4, as well as the computer screen shown in FIG. 5.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Whether independent Claims 1, 15, 29, and 43 and associated dependent Claims 2-10, 12-14, 16-24, 26-28, 30-38, 40-42, 44-52, and 54-56 are patentable under 35 U.S.C. § 103(a) over U.S. Patent No. 6,029,149 to Dykstra, et al. in view of U.S. Patent No. 6,385,594 to Lebda, et al.

ARGUMENT

THE REJECTION UNDER 35 U.S.C. § 103(A) OVER DYKSTRA, ET AL. IN VIEW OF LEBDA SHOULD BE REVERSED

For the reasons set forth below, Applicants respectfully submits that <u>Dykstra, et al.</u> and <u>Lebda, et al.</u>, taken alone or in combination, fail to disclose, teach, or suggest each element of independent Claims 1, 15, 29, and 43 and their associated dependent claims, and respectfully requests that the Board reverse the pending rejection of Claims 1-10, 12-24, 26-38, 40-52, and 54-56 under 35 U.S.C. § 103(a).

I.　　**<u>Dykstra, et al. and Lebda, et al.,</u> Taken Alone or in Combination, Fail to Teach or Suggest Each Element of Independent Claim 1 and Its Associated Dependent Claims 2-10 and 12-14.**

Independent claim 1 of Applicants' claimed invention recites a number of limitations which are not present in either <u>Dykstra, et al.</u> or <u>Lebda, et al.</u>, taken alone or in combination. Specifically, independent Claim 1 recites the following limitations which are not present in either <u>Dykstra, et al.</u> or <u>Lebda, et al.</u>:

- "means for calculating a numeric risk score for the loan based on a plurality of risk factors including at least two of a fraud risk factor, an underwriting risk factor and a property valuation risk factor...;"

- "means for assigning a risk category to the loan based on the numeric risk score;"

- "means for generating a computer screen for displaying the numeric risk score and the risk category to a user."

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For the reasons set forth below, Applicants respectfully submit that neither Dykstra, et al. nor Lebda, et al., taken alone or in combination, teach or suggest each of the foregoing limitations of Claim 1 and its associated dependent Claims 2-10 and 12-14 (which include the same limitations by virtue of their dependency on Claim 1).

A.   Neither Dykstra, et al. nor Lebda, et al., Taken Alone or in Combination, Teach or Suggest "means for calculating a numeric risk score for the loan based on a plurality of risk factors including at least two of a fraud risk factor, an underwriting risk factor and a property valuation risk factor..."

By way of background, the system of Dykstra, et al. relates to a direct credit evaluation and loan processing system for use by lenders. The system provides a central processing unit which can be accessed by a plurality of lenders as well as credit bureaus, and allows a lender to ascertain a credit score for a borrower. Based on this information, a loan application is either approved or declined. The system is automated, and requires no intermediate human intervention or handling of paper records.

The Office Action contends that Dykstra, et al. discloses the foregoing limitation of claim 1 in the Abstract and at column 3, lines 32-67 and column 4, lines 1-67[1]. However, neither these excerpts, nor any remaining portions of Dykstra, et al., disclose, teach or suggest **means for calculating a numeric risk score for a loan based upon a plurality of risk factors including at least two of a property risk factor, an underwriting risk factor, and a property valuation**

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[1]   The Office Action cites "column [sic] 4-7 lines 1-67." *See* Office Action dated 4/27/2010 (hereinafter, "Office Action") at 2. Applicants believe this to be a typographical error, and as such, refer herein only to column 4, lines 1-67. However, even if the Office Action intended to refer to the entirety of columns 4-7, Applicants respectfully submit that the deficiencies of Dykstra, et al. discussed herein also apply to cols. 4-7.

risk factor, as required by independent claim 1. The deficiencies of each of the foregoing passages of Dykstra, et al. cited in the Office Action will now be addressed.

The Abstract of Dykstra, et al. states the following:

[57]   **ABSTRACT**

An apparatus and method for automatic credit evaluation and loan processing is disclosed. The apparatus includes a central processing unit which has capabilities for communicating with off-site remote access terminals. The central processing unit also includes facsimile transmission capabilities as well as capabilities for communicating with credit bureau computers. Mass storage capabilities are included for storing program modules executable on the central processing unit and for maintaining databases. Program modules are provided for remote access security, credit bureau information processing, credit scoring, message display, and facsimile generation. In operation, the central processing unit is accessed from a remote terminal, loan application information is entered into the remote terminal, credit bureau information is accessed by the apparatus, credit scoring is performed, and a loan application is approved or declined. All steps, except for the entering of loan application information into the remote terminal, are fully automated, require no intermediate human intervention, and no intermediate handling of paper records. Application status is provided to the user via a visual display on the remote access terminal and hard copy confirmation to the user and lender via facsimile transmission.

As can be seen, at best, the Abstract of Dykstra, et al. states that the system can perform *credit* scoring. However, credit scoring is not equivalent to the claimed limitation of means for calculating **a numeric risk score based upon at least two of a fraud risk factor, an underwriting risk factor, or a property risk factor.** There is simply nothing mentioned in the Abstract of Dykstra, et al. relating to the use of fraud risk factors, underwriting risk factors, or

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property risk factors, much less combinations of two or more of such factors, to calculate a numeric risk score for a loan, as required by Claim 1.

The remaining portions of <u>Dykstra, et al.</u> cited in the Office Action are equally deficient. Col. 3, lines 32-67 of <u>Dykstra, et al.</u> state the following:

> Referring more specifically to the drawings, for illustrative purposes the present invention is embodied in the system configuration generally shown in FIG. 1 and in the method steps shown generally in FIG. 2A through FIG. 2F. It will be appreciated that the system and method of operation may vary as to the details of its configuration and operation without departing from the basic concepts as disclosed herein.
>
> Referring to FIG. 1, the invention generally comprises an automated credit evaluation and loan processing apparatus as shown. The invention includes a plurality of program modules executable on a programmed data processor shown as direct lending central processing unit 10. Central processing unit 10 is typically a computer such as a VAX or the like running with a hardware compatible operating system. Mass storage for the system generally comprises hard disk drives. Residing on those hard disk drives, and central to operation of the system, are various data files and program modules. These files are integrated and interact with each other through central processing unit 10. The program modules include a dial back security module 12, a credit bureau processing module 14, a credit scoring module 16, a message display module 18, and a facsimile generation module 20.
>
> Central processing unit 10 is connected to, and interacts with, selected peripheral input and output devices. For user access, one or more incoming modems 22 and outgoing modems 24 are provided. Alternatively, bidirectional modems could be used. Said modems provide data communication capabilities over one or more telephone lines to point of purchase terminals 26 which serve as remote access terminals. Point of purchase terminals 26 could be dumb terminals, smart terminals, microcomputers or the like, having a keyboard, display, or other user input/output devices. Modems 28 are also provided at point of purchase

The foregoing excerpt of Dykstra, et al. merely discusses credit scoring (i.e., credit scoring module 16). It is unconcerned with calculation of a numeric risk score for a loan based on at least two of a fraud risk factor, an underwriting risk factor, and a property valuation risk factor.

Col. 4, lines 1-67 of Dykstra, et al., also quoted in the Office Action, is similarly deficient. This passage relates to the usage of various data communications links, point of purchase devices, provisioning of security, usage of facsimile equipment, and overall data entry steps carried out by a user of the system. The last paragraph of col. 4 (lines 53-67) discloses that the system can contact a credit bureau to check a potential borrower's credit, as follows:

> At step **110**, a particular credit bureau is selected for checking the potential borrower's credit. The credit bureau
> 55 could be TRW, Equifax, Trans Union, or any other an credit bureau to which access has been previously authorized. It is not anticipated that borrower or merchant selection of a particular credit bureau would be provided; instead, the credit bureau would be preselected by the chosen lender and,
> 60 therefore, automatically selected when the lender is selected by the potential borrower. At this step, credit information is obtained for the potential borrower. At step **112**, the loan application information and credit bureau information regarding the potential borrower is compiled into a scoring
> 65 model. This can be a generic model or, preferably, a custom model developed by or for the particular lender. By using a custom model, the scoring can be based on empirical data

To the extent that the foregoing paragraph discloses scoring, such scoring is only carried out in connection with a potential borrower's credit. No mention is made of a numeric risk based upon at least two of a fraud risk factor, an underwriting risk factor, and a property valuation risk factor.

Lebda, et al. fails to cure the foregoing deficiencies of Dykstra, et al. Lebda, et al. discloses a method and computer network for coordinating a loan over the Internet. To the extent that Lebda, et al. discloses the concept of obtaining a score in connection with a potential loan, like Dykstra, et al., such a score relates to a *credit* score (*see, e.g.*, col. 3, lines 11-14; col. 4, lines 35-41). Nowhere does Lebda, et al. disclose, teach, or suggest calculating a numeric risk score for a loan based upon at least two of a fraud risk factor, an underwriting risk factor, and a property valuation risk factor.

In view of the foregoing, neither Dykstra, et al. nor Lebda, et al., taken alone or in combination, teach or suggest "means for calculating a numeric risk score based upon at least two of a fraud risk factor, an underwriting risk factor, or a property risk factor" as set forth in independent Claim 1 and its associated dependent Claims 2-10 and 12-14.

B.   Neither Dykstra, et al. nor Lebda, et al., Taken Alone or in Combination, Teach or Suggest "means for assigning a risk category to the loan based on the numeric risk score..."

Claim 1 recites the limitation of "means for assigning a risk category to [a] loan based upon [a] numeric risk score...." The Office Action contends that this limitation is taught by Dykstra, et al. at the following passages: col. 2, lines 35-49; col. 4 lines 65-67; col. 5, lines 1-24; col. 6, lines 16-53; and col. 7, lines 1-18. The deficiencies of each of these cited portions of Dykstra, et al. will be addressed in order, as follows.

Col. 2, lines 35-49 states the following:

35   Once access to the central processing unit is gained, the
user selects a desired lending institution and enters the loan
application information. The central processing unit then
accesses the credit bureau which has been preselected by the
chosen lending institution and obtains a credit report for the
40   borrower. Next, the central processing unit accesses the
credit scoring model which the particular lender has prese-
lected. A first stage scoring is then made based on the loan
application information. Next, a second stage scoring is
made based on the credit report. The two scores are then
45   numerically totalled, and a scoring matrix for the particular
lender is accessed. A loan value is assigned to the score, and
the score is compared to a cut-off level set by the particular
lender. Scores falling below the cut-off level indicate a loan
which has been declined. Otherwise, a loan is approved.

As can be seen, col. 2, lines 35-49 discloses obtaining two scores in connection with a credit report, totaling the scores, and accessing a scoring matrix for a lender. Scores which fall below a cut-off level indicate that the loan has been declined. However, there is no disclosure in col. 2, lines 35-49 relating to **means for <u>assigning a risk category to a loan based upon a numeric risk score</u>**, as required by independent Claim 1. At best, as disclosed in col. 2, lines 35-49, the system of <u>Dykstra, et al.</u> adds two credit scores, and utilizes the total in determining whether a loan should be approved or denied. However, the system of <u>Dykstra, et al.</u> does not assign a risk category to a loan based upon the credit score.

Col. 4, lines 65-67 of <u>Dykstra, et al.</u> (reproduced previously) is similarly deficient. At best, this excerpt discloses that a generic or a customized scoring model can be used to provide a credit score, but there is no discussion of assigning a risk category to a loan based upon a risk score.

Col. 5, lines 1-24 of <u>Dysktra, et al.</u> states the following:

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for that particular lender. By using a custom or generic model, final approval can be determined without the need for the lender to review a preapproval or pre-qualification. At step 114, a final score is developed and compared with a loan approval matrix preselected by the lender. In addition, a 5 determination is made as to approval of the loan, whether referral to the lender is necessary for further consideration, whether the loan is denied, or whether an error has been detected. At step 116, the loan decision status is displayed to the merchant on the video display attached to point of 10 purchase terminal 26. At step 118, the loan decision status is checked and, if the loan is approved or referred, the process continues at step 120 where the loan application, approval or referral status, and credit report are sent to the lender for receipt on a lender facsimile receiving device 34. At step 15 122, the decision is then sent to the merchant for receipt on a point of purchase facsimile receiving device 30. The potential borrower can then take a copy of the facsimile approval to the lender for verification and sign the papers for the loan, or the lender may choose to purchase the financing 20 contract for the borrower directly from the merchant. The process is then completed and terminates at step 124. If the loan is denied, steps 120 and 122 are bypassed and the process terminates at step 124.

At best, this excerpt of <u>Dykstra, et al.</u> merely discloses that a final (credit) score is utilized by the system to determine whether to approve a loan, whether referral to a lender is necessary, whether to deny a loan, or whether an error has been detected. None of these activities relate in any way to Applicants' claimed limitation of means for <u>assigning a risk category to a loan</u> based upon a numeric risk score.

Col. 6, lines 16-53 of <u>Dykstra, et al.</u> is similarly deficient. This excerpt states the following:

15   Referring also to FIG. 2D, before a decision can be given
to the merchant at step of 116 (FIG. 2A), the credit scoring
module must be invoked. This module corresponds to steps
112 and 114 shown in FIG. 2A. At step 178, central
processing unit 10 identifies which of several lender specific
20   score models 180 will be used in the evaluation process.
Each score model 180 will have a particular code which will
correspond to a lender code, and could be a generic or
custom model. As explained earlier, a particular lender may
have developed a custom model based on its own empirical
25   data. Once the score model code is determined, the appli-
cation data is read at step 182 from the loan application
database 108. At step 184, the appropriate score model 180
is accessed, and a first stage scoring takes place. In the first
stage evaluation, the scoring is based on only the application
30   data as it fits within the score model. The information is
scored, and a numerical value is assigned. Next, the infor-
mation used for scoring and the resultant score is stored in
a credit scoring database 186 for later use as historical data
for custom scoring models as well as for other purposes. At
35   step 188, the custom summary line provided with the credit
report is input from the credit report database 160. Using the
score model 180 and the credit report information, a second
stage scoring takes place at step 190 and a numerical value
is assigned. Then, at step 192, the two numerical values from
40   the first and second stage scorings are added together to
yield a single, total score. At step 194, a lender matrix
database 196 is accessed and a loan value is assigned based
on the score. Here, the potential borrower's income and
score are compared to the loan matrix which is predeter-
45   mined for a particular lender and used to determine the
amount of the loan for which the potential borrower is
qualified. At step 198, central processing unit 10 determines
whether, notwithstanding the qualified loan amount previ-
ously determined, the score is above or below a threshold in
50   the lender's loan matrix. If the score is below the threshold,
the loan will be flagged as denied. Otherwise, the loan is
flagged as approved. The module then completes its opera-
tion at step 200 and processing continues at step 116 (FIG.
2A).

This excerpt discloses that a two-step credit scoring process is undertaken, resulting in first and

second credit scores being produced. The two scores are then added together and compared to a

score matrix to assign a loan value based upon the total score. The total score can also be

compared to a threshold to determine whether to approve or deny a loan. However, nowhere

does this excerpt disclose <u>assigning a risk category to a loan based upon a numeric risk score</u>, as

required by claim 1. Rather, the total score produced by the system of <u>Dykstra, et al.</u> results, at

best, in two actions: generation of a loan value, and a decision whether to approve, deny, or refer

a loan. There is no assignment of a risk category to a loan whatsoever.

Finally, col. 7, lines 1-18 are equally deficient. Col. 7, lines 1-18 recites the following:

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> If the credit report is verified as complete, at step **204** a
> determination is made as to whether the total score from step
> **192** (FIG. 2D) was flagged at step **198** (FIG. 2D) as being
> below the lender's cut-off threshold. If the score was so
> flagged, at step **206** a message is displayed indicating that 5
> the application is being referred to the lender for further
> consideration and the module terminates at step **220**. If the
> score was not so flagged, then at step **208** a determination is
> made as to whether the loan amount approved is less than the
> loan amount requested by the potential borrower. If the loan 10
> amount approved is less than the amount requested, at step
> **210** a message is displayed indicating the amount of the loan
> for which approval has been obtained. The module then
> terminates at step **220**. If the loan amount approved is
> greater than the amount requested, then at step **212** a 15
> message is displayed indicating that approval has been
> obtained for the loan amount requested and the module then
> terminates at step **220**.

As can be seen, the above excerpt discloses actions that are taken by the system of <u>Dykstra, et al.</u>

based upon the total credit score. None of these actions relate in any way to assigning a risk

category to a loan based upon a numeric risk score, as required by independent claim 1.

The Office Action does not point to any disclosure in <u>Lebda, et al.</u> relating to any of the

foregoing limitations, and indeed, Applicant respectfully submits that no such disclosure exists in

<u>Lebda, et al.</u>

In view of the foregoing, neither <u>Dykstra, et al.</u> nor <u>Lebda, et al.</u>, taken alone or in

combination, teach or suggest "means for assigning a risk category to [a] loan based upon [a]

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numeric risk score...." as set forth in independent Claim 1 and its associated dependent Claims 2-10 and 12-14.

      C.   **Neither Dykstra, et al. nor Lebda, Taken Alone or in Combination, Teach or Suggest "means for generating a computer screen for displaying the numeric risk score and the risk category to a user."**

The Office Action concedes that <u>Dykstra, et al.</u> does not teach the limitation of Claim 1 and its associated dependent Claims 2-10 and 12-14 of "means for generating a computer screen for displaying the numeric risk score and the risk category to a user." The Office Action points to <u>Lebda, et al.</u> as disclosing this limitation, and contends that it would have been obvious to a person of ordinary skill in the art to combine the teachings of <u>Dykstra, et al.</u> and <u>Lebda, et al.</u> to arrive at all of the limitations of Claim 1. However, contrary to the assertions of the Office Action, <u>Lebda, et al.</u> also fails to teach or suggest the limitation of Claim 1 of "means for generating a computer screen for displaying the numeric risk score and the risk category to a user."

The Office Action cites col. 11, lines 40-67 and col. 12, lines 1-29 of <u>Lebda, et al.</u> as disclosing the foregoing limitations. Col. 11, lines 40-67 and col. 12, lines 1-29 quoted in the Office Action (which correspond to Claim 26 of <u>Lebda, et al.</u>) state the following:

26. A computer-readable medium having computer executable instructions for coordinating submission of an electronic credit qualification form between a consumer and a plurality of lending institutions, comprising:

receiving selection criteria from the plurality of lending institutions;

storing the selection criteria in a database;

receiving credit data for the electronic credit qualification form from the consumer;

comparing the credit data to the selection criteria of the database, the selection criteria useful for selecting a successful credit qualification form and defined by each of the lending institutions based on their particular lending criteria;

in response to the credit data satisfying the selection criteria, identifying each lending institution associated with a match of the credit data to the selection criteria as a possible candidate for offering credit or a loan to the consumer;

selecting a predetermined number of the matching lending institutions and forwarding the credit data to the selected set of the matching lending institutions, the forwarding of the credit data occurring without a delay for reception of any credit decisions from said lending institutions associated with a match of said credit data, said predetermined number being less than a total number of the matching lending institutions previously identified and being greater than one when a plurality of identified lending institutions exists;

receiving a plurality of positive credit decisions from the matching lending institutions of the selected set regarding an offer of credit or a loan to the consumer;

displaying information including each credit decision to the consumer advising that the selected set of the matching lending institutions represents possible candidates for offering credit or a loan to the consumer, thereby providing the consumer with the opportunity to accept the credit or loan offer from one of the selected set of identified lending institutions, such that the selected set of identified lending institutions competes for business with the consumer;

determining an appropriate transfer method to transmit the electronic credit qualification form to each selected one of the matching lending institutions;

sending the electronic credit qualification form to each selected one of the matching lending institutions via the appropriate transfer method;

accepting a consumer's decision via a web site regarding the offer of credit or a loan from the selected ones of the matching lending institutions, the consumer's decision comprising an acceptance, denial or request for more information regarding a positive credit decision for one of said lending institutions associated with a match of said credit data; and

forwarding the consumer's decision to the selected ones of the matching lending institutions.

As can be seen, there is absolutely no disclosure anywhere in the foregoing excerpt of Lebda, et al. relating to means for generating a computer screen for displaying a numeric risk score and a risk category for a loan, as required by Claim 1. To the extent that the foregoing excerpt of Lebda, et al. discloses displaying information to a user, the information displayed includes information relating to credit decisions made by lending institutions, so that the user can accept credit or a loan offer from one of the lending institutions. However, the information displayed by Lebda, et al. does not include a numeric risk score or a risk category relating to a loan. Applicants further submit that the remainder of Lebda, et al. is similarly deficient.

Thus, even if Lebda, et al. is combined with Dykstra, et al., the resulting combination does not disclose the limitation of independent Claim 1 and its associated dependent Claims 2-10

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and 12- 14 of "means for generating a computer screen for displaying the numeric risk score and the risk category to a user."

II. **Dykstra, et al. and Lebda, et al., Taken Alone or in Combination, Fail to Teach or Suggest Each Element of Independent Claim 15 and Its Associated Dependent Claims 16-24 and 26-28.**

Independent Claim 15 of Applicants' claimed invention recites a number of limitations which are not present in either Dykstra, et al. or Lebda, et al., taken alone or in combination. Specifically, independent Claim 15 recites at least the following limitations which are not present in either Dykstra, et al. or Lebda, et al.:

- "a mechanism adapted to calculate a numeric risk score for [a] loan based on a plurality of risk factors including at least two of a fraud risk factor, an underwriting risk factor and a property valuation risk factor…"
- "a mechanism for assigning a risk category to the loan based on the numeric risk score…"
- "a mechanism for generating a computer screen for displaying the numeric risk score and the risk category to a user."

Applicants note that the foregoing limitations recite functional language which is identical to the functional language appearing in the limitations of Claim 1 discussed in Section I above, but in the context of a system claim which includes mechanism limitations. Since the Office Action cites the same portions of Dykstra, et al. and Lebda, et al. in rejecting the foregoing limitations of Claim 15 that were cited against the limitations of Claim 1, Applicants respectfully submit that independent Claim 15 and its associated dependent claims 16-24 and 26-28 are patentable over Dykstra, et al. and Lebda, et al. for the same reasons discussed in Section I above.

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III.   **Dykstra, et al. and Lebda, et al., Taken Alone or in Combination, Fail to
         Teach or Suggest Each Element of Independent Claim 29 and Its Associated
         Dependent Claims 30-38 and 40-42.**

Independent Claim 29 of Applicants' claimed invention recites a number of limitations

which are not present in either Dykstra, et al. or Lebda, et al., taken alone or in combination.

Specifically, independent Claim 29 recites at least the following limitations which are not present

in either Dykstra, et al. or Lebda, et al.:

- "calculating at [a] computer system a numeric risk score for [a] loan based on a
  plurality of risk factors including at least two of a fraud risk factor, an
  underwriting risk factor and a property valuation risk factor;"

- "assigning at the computer system a risk category to the loan based on the numeric
  risk score;"

- "displaying a computer screen to a user which includes the numeric risk score and
  the risk category."

Applicants note that the foregoing limitations recite functional language which is

identical to the functional language appearing in the limitations of Claim 1 discussed in Section I

above, but in the context of a computer-readable medium claim. Since the Office Action cites

the same portions of Dykstra, et al. and Lebda, et al. in rejecting the foregoing limitations of

Claim 29 that were cited against the limitations of Claim 1, Applicants respectfully submit that

independent Claim 29 and its associated dependent claims 30-38 and 40-42 are patentable over

Dykstra, et al. and Lebda, et al. for the same reasons discussed in Section I above.

IV.　　**Dykstra, et al. and Lebda, et al., Taken Alone or in Combination, Fail to Teach or Suggest Each Element of Independent Claim 43 and Its Associated Dependent Claims 44-52 and 54-56.**

Independent Claim 43 of Applicants' claimed invention recites a number of limitations which are not present in either <u>Dykstra, et al.</u> or <u>Lebda, et al.</u>, taken alone or in combination. Specifically, independent Claim 43 recites at least the following limitations which are not present in either <u>Dykstra, et al.</u> or <u>Lebda, et al.</u>:

- "calculating at [a] computer system a numeric risk score for [a] loan based on a plurality of risk factors including at least two of a fraud risk factor, an underwriting risk factor and a property valuation risk factor;"

- "assigning at the computer system a risk category to the loan based on the numeric risk score;"

- "displaying a computer screen to a user which includes the numeric risk score and the risk category."

Applicants note that the foregoing limitations recite functional language which is identical to the functional language appearing in the limitations of Claim 1 discussed in Section I above, but in the context of a computer-implemented method claim. Since the Office Action cites the same portions of <u>Dykstra, et al.</u> and <u>Lebda, et al.</u> in rejecting the foregoing limitations of Claim 43 that were cited against the limitations of Claim 1, Applicants respectfully submit that independent Claim 43 and its associated dependent claims 44-52 and 54-56 are patentable over <u>Dykstra, et al.</u> and <u>Lebda, et al.</u> for the same reasons discussed in Section I above.
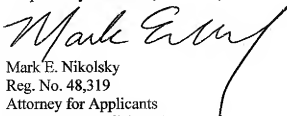
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CONCLUSION

For at least the reasons stated herein, Applicants respectfully request that the Board withdraw all of the rejections discussed herein, so that all of the pending claims in the present application can proceed to allowance.

Applicant hereby authorizes the Board to charge any deficiency and/or credit any overpayment to Deposit Account Number 503571.

Respectfully submitted,

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CLAIMS APPENDIX

1.   An automated loan risk assessment system, comprising:

means for receiving information about a loan;

means for calculating a numeric risk score for the loan based on a plurality of risk factors including at least two of a fraud risk factor, an underwriting risk factor and a property valuation risk factor, whereby the numeric risk score can be used by a loan service provider in deciding whether or not to fund or insure the loan;

means for assigning a risk category to the loan based on the numeric risk score; and

means for generating a computer screen for displaying the numeric risk score and the risk category to a user.

2.   The automated loan risk assessment system of claim 1, wherein the risk calculation means comprises:

means for calculating a fraud risk score;

means for calculating an underwriting risk score; and

means for calculating a property valuation score, wherein the numeric risk score for the loan is based on at least two of the fraud risk score, the underwriting risk score and the property valuation risk score.

3.   The automated loan risk assessment system of claim 2, wherein the fraud risk score calculation means comprises:

means for storing general information about borrowers and properties; and

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means for detecting one or more variances among the loan information or between the loan information and the general information, each variance having a certain degree, such that the fraud risk score is based on the detected variances and the degrees thereof.

4.   The automated loan risk assessment system of claim 3, further comprising means for calculating a variance score for each detected variance based on the degree thereof, wherein the fraud risk score represents the sum of the variance scores.

5.   The automated loan risk assessment system of claim 3, further comprising means for determining one or more steps needed to resolve the one or more detected variances.

6.   The automated loan risk assessment system of claim 3, further comprising means for tracking the status of the one or more detected variances.

7.   The automated loan risk assessment system of claim 2, wherein the underwriting risk score calculation means comprises means for obtaining the underwriting risk score from an underwriting risk score provider, and wherein the property valuation risk score calculation means comprises means for obtaining a property valuation risk score from a property valuation score provider.

8.   The automated loan risk assessment system of claim 2, further comprising means for converting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score.

9.   The automated loan risk assessment system of claim 8, wherein the means for converting comprises means for weighting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score based on the level of risk associated therewith such that the risk score is based on the weights assigned thereto.

10.   The automated loan risk assessment system of claim 8, wherein the means for converting comprises converting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score such that all of the scores are compatible, and wherein the numeric risk score represents an average of the compatible scores.

11.   (Cancelled)

12.   The automated loan risk assessment system of claim 1, wherein the loan information includes insurance information related to at least one insurance claim being asserted against an insurance policy to which a loan is subject, and wherein the means for calculating a numeric risk score comprises means for calculating a numeric risk score for the claim based on a plurality of risk factors including at least one of a fraud risk factor, an underwriting risk factor and a property valuation risk factor, whereby the numeric risk score can be used by a loan service provider in deciding whether to allow or deny the claim.

13.   The automated loan risk assessment system of claim 1, further comprising means for interfacing at least one pricing scheme of a loan service provider such that a loan or an insurance policy for a loan can be automatically priced based on the numeric risk score calculated therefor.

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14.   The automated loan risk assessment system of claim 1, wherein the numeric risk score is based on a combination of the fraud risk score factor, the underwriting risk factor and the property valuation risk factor.

15.   An automated loan risk assessment system, comprising:

a mechanism adapted to receive information about a loan;

a mechanism adapted to calculate a numeric risk score for the loan based on a plurality of risk factors including at least two of a fraud risk factor, an underwriting risk factor and a property valuation risk factor, whereby the numeric risk score can be used by a loan service provider in deciding whether or not to fund or insure the loan;

a mechanism for assigning a risk category to the loan based on the numeric risk score; and

a mechanism for generating a computer screen for displaying the numeric risk score and the risk category to a user.

16.   The automated loan risk assessment system of claim 15, wherein the risk calculation mechanism comprises:

a mechanism adapted to calculate a fraud risk score;

a mechanism adapted to calculate an underwriting risk score; and

a mechanism adapted to calculate a property valuation score, wherein the numeric risk score for the loan is based on at least two of the fraud risk score, the underwriting risk score and the property valuation risk score.

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17.   The automated loan risk assessment system of claim 16, wherein the fraud risk score calculation mechanism comprises:

    a mechanism adapted to store general information about borrowers and properties; and

    a mechanism adapted to detect one or more variances among the loan information or between the loan information and the general information, each variance having a certain degree, such that the fraud risk score is based on the detected variances and the degrees thereof.

18.   The automated loan risk assessment system of claim 17, further comprising a mechanism adapted to calculate a variance score for each detected variance based on the degree thereof, wherein the fraud risk score represents the sum of the variance scores.

19.   The automated loan risk assessment system of claim 17, further comprising a mechanism adapted to determine one or more steps needed to resolve the one or more detected variances.

20.   The automated loan risk assessment system of claim 17, further comprising means for tracking the status of the one or more detected variances.

21.   The automated loan risk assessment system of claim 16, wherein the underwriting risk score calculation mechanism comprises a mechanism adapted to obtain the underwriting risk score from an underwriting risk score provider, and wherein the property valuation risk score calculation mechanism comprises a mechanism adapted to obtain a property valuation risk score from a property valuation score provider.

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22.   The automated loan risk assessment system of claim 16, further comprising a mechanism adapted to convert at least one of the fraud risk score, the underwriting risk score and the property valuation risk score.

23.   The automated loan risk assessment system of claim 22, wherein the converting mechanism comprises a mechanism adapted to weight at least one of the fraud risk score, the underwriting risk score and the property valuation risk score based on the level of risk associated therewith such that the risk score is based on the weights assigned thereto.

24.   The automated loan risk assessment system of claim 22, wherein the converting mechanism is adapted to convert at least one of the fraud risk score, the underwriting score and the property valuation risk score such that all of the scores are compatible, and wherein the numeric risk score represents an average of the compatible scores.

25.   (Cancelled)

26.   The automated loan risk assessment system of claim 15, wherein the loan information includes insurance information related to at least one insurance claim being asserted against an insurance policy to which a loan is subject, and wherein the mechanism for calculating a the numeric risk score comprises a mechanism adapted to calculate a numeric risk score for the claim based on a plurality of risk factors including at least one of a fraud risk factor, an underwriting risk factor and a property valuation risk factor whereby the numeric risk score can be used by a loan service provider in deciding whether to allow or deny the claim.

27.   The automated loan risk assessment system of claim 15, further comprising a mechanism adapted to interface at least one pricing scheme of a loan service provider such that a loan or an insurance policy for a loan can be automatically priced based on the numeric risk score calculated therefor.

28.   The automated loan risk assessment system of claim 15, wherein the numeric risk score is based on a combination of the fraud risk score, the underwriting risk score and the property valuation risk score.

29.   A computer-readable medium whose contents cause a computer system to assess the risk associated with funding or insuring a loan by performing the steps of:

       receiving information about a loan;

       calculating at the computer system a numeric risk score for the loan based on a plurality of risk factors including at least two of a fraud risk factor, a credit risk factor and a property valuation risk factor;

       assigning at the computer system a risk category to the loan based on the numeric risk score; and

       displaying a computer screen to a user which includes the numeric risk score and the risk category.

30.   The computer-readable medium of claim 29, wherein the step of calculating the numeric risk score further comprises the steps of:

       calculating a fraud risk score;

       calculating an underwriting risk score; and

calculating a property valuation score, wherein the numeric risk score for the loan is based on the fraud risk score, the underwriting risk score and the property valuation risk score.

31. The computer-readable medium of claim 30, wherein the step of calculating the fraud risk score comprises: storing general information about borrowers and properties; and detecting one or more variances among the loan information or between the loan information and the general information, each variance having a certain degree, such that the fraud risk score is based on the detected variances and the degrees thereof.

32. The computer-readable medium of claim 31, further comprising the step of calculating a variance score for each detected variance based on the degree thereof, wherein the fraud risk score represents the sum of the variance scores.

33. The computer-readable medium of claim 31, further comprising the step of determining one or more steps needed to resolve the one or more detected variances.

34. The computer-readable medium of claim 31, further comprising the step of tracking the status of the one or more detected variances.

35. The computer-readable medium of claim 30, wherein the step of calculating the underwriting risk score comprises obtaining the underwriting risk score from an underwriting risk score provider, and wherein the step of calculating the property valuation risk score comprises obtaining a property valuation risk score from a property valuation score provider.

36.   The computer-readable medium of claim 30, further comprising the step of converting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score.

37.   The computer-readable medium of claim 36, wherein the step of converting comprises weighting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score based on the level or risk associated therewith such that the numeric risk score is based on the weights assigned thereto.

38.   The computer-readable medium of claim 36, wherein the step of converting comprises converting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score such that all of the scores are compatible, and averaging the compatible scores.

39   (Cancelled)

40.   The computer-readable medium of claim 29, wherein the loan information includes insurance information related to at least one insurance claim being asserted against an insurance policy to which a loan is subject, and wherein the medium further comprises the step of calculating a numeric risk score for the claim based on a plurality of risk factors including at least one of a fraud risk factor, an underwriting risk factor and a property valuation risk factor, whereby the numeric risk score can be used by a loan service provider in deciding whether to allow or deny the claim.

41.   The computer-readable medium of claim 29, further comprising the step of interfacing at least one pricing scheme of a loan service provider such that a loan or an insurance policy can be automatically priced based on the numeric risk score calculated therefor.

42.   The computer-readable medium of claim 29, wherein the numeric risk score is based on a combination of the fraud risk score, the underwriting risk score and the property valuation risk score.

43.   A computer-implemented method of assessing the risk associated with the funding or insuring of a loan, comprising:

        receiving information about a loan;

        calculating at a computer system a numeric risk score for the loan based on a plurality of risk factors including at least two of a fraud risk factor, an underwriting risk factor and a property valuation risk factor;

        assigning at the computer system a risk category to the loan based on the numeric risk score; and

        displaying a computer screen to a user which includes the numeric risk score and the risk category.

44.   The computer-implemented method of claim 43, wherein the step of calculating the numeric risk score further comprises the steps of:

        calculating a fraud risk score;

        calculating an underwriting risk score; and

calculating a property valuation score, wherein the numeric risk score for the loan is based on the fraud risk score, the underwriting risk score and the property valuation risk score.

45.   The computer-implemented method of claim 44, wherein the step of calculating the fraud risk score comprises:

storing general information about borrowers and properties; and

detecting one or more variances among the loan information or between the loan information and the general information, each variance having a certain degree, such that the fraud risk score is based on the detected variances and the degrees thereof.

46.   The computer-implemented method of claim 45, further comprising the step of calculating a variance score for each detected variance based on the degree thereof, wherein the fraud risk score represents the sum of the variance scores.

47.   The computer-implemented method of claim 45, further comprising the step of determining one or more steps needed to resolve the one or more detected variances.

48.   The computer-implemented method of claim 45, further comprising the step of tracking the status of the one or more detected variances.

49.   The computer-implemented method of claim 44, wherein the step of calculating the underwriting risk score comprises obtaining a credit risk score from a credit risk score provider, and wherein the step of calculating the property valuation risk score comprises obtaining a property valuation risk score from a property valuation score provider.

50.   The computer-implemented method of claim 44, further comprising the step of converting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score.

51.   The computer-implemented method of claim 50, wherein the step of converting comprises weighting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score based on the level of risk associated therewith such that the risk score is based on the weights assigned thereto.

52.   The computer-implemented method of claim 50, wherein the step of converting comprises converting at least one of the fraud risk score, the underwriting risk score and the property valuation risk score such that all of the scores are compatible, and averaging the compatible scores.

53.   (Cancelled)

54.   The computer-implemented method of claim 43, wherein the loan information includes insurance information related to at least one insurance claim being asserted against an insurance policy to which the loan is subject, and wherein the step of calculating a numeric risk score comprises calculating a numeric risk score for the claim based on a plurality of factors including at least one of a fraud risk factor, an underwriting risk factor, and a property valuation risk factor, whereby the numeric risk score can be used by a loan service provider in deciding whether to allow or deny the claim.

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55.   The computer-implemented method of claim 44, further comprising the step of interfacing at least one pricing scheme of a loan service provider such that a loan or insurance policy can be automatically priced based on the numeric risk score calculated therefor.

56.   The computer-implemented method of claim 44, wherein the numeric risk score is based on a combination of the fraud risk score, the underwriting risk score, and the property valuation risk score.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.